



# Text Complexity Analysis of

Invasive Lionfish Diet Could Impact Native Coral Reef Fishes (title)

National Oceanic and Atmospheric Administration (author)

Recommended Complexity Band: 9-10

## Qualitative Measures

**Meaning/Purpose:** (Briefly explain the levels of meaning (Literary Text) or purpose (Informational Text.) The purpose is to explain why lionfish are considered a threat to Atlantic Ocean ecosystems. The article provides a hypothesis as to how lionfish arrived in the Atlantic and discusses possible ramifications if the population is not controlled. This is all presented straightforwardly.

**Text Structure:** (Briefly describe the structure, organization, and other features of the text.) The article is brief and straightforward. It has a general problem/solution structure, although there is much more emphasis on the problem than on solutions. The two images add a lot to the article, but their captions do not contain essential information. There is no subtitle and no headings.

**Language Features:** (Briefly describe the conventions and clarity of the language used in the text, including the complexity of the vocabulary and sentence structures.) The text is short, but sentences are long and wordy. Students will encounter subject-specific terms like *invasive*, *diversity*, *species*, *crustaceans*, *ecosystem*, *algae*, *reef*, and *predator*.

**Knowledge Demands:** (Briefly describe the knowledge demands the text requires of students.) Readers will need a basic understanding of ecology, trophic levels, and food webs. The article discusses lionfish biology only briefly, but more background on the species would allow for better initial comprehension. In addition, knowledge on the oceans and their locations would be beneficial, as the article discusses the native habitat of the lionfish as well as the area where it has become invasive.

## Text Description

**Briefly describe the text:** This informational text resource is intended to support reading in the content area. The article explains how lionfish, an invasive species in Atlantic waters, is threatening ecosystems there. The voracious diet of the lionfish will likely affect native species and the commercial fishing industry.

## Quantitative Measures

**Complexity Band Level (provide range):** 11-12

The text falls in the above grade bands according to a quantitative reading measure.

## Considerations for Reader and Task

Below are factors to consider with respect to the reader and task.

### Potential Challenges this Text Poses:

Students may not know the natural geographical range of the lionfish species. Show students a world map to aid with comprehension.

In addition, a discussion of food webs or trophic levels would also help readers better understand how one fish species can impact an entire ecosystem.

## Recommended Placement

**Briefly explain the recommended placement of the text in a particular grade band:** The quantitative reading measure is relatively high, but qualitative factors show that this is a short and relatively uncomplicated text. The concept of an invasive species is not difficult to understand, and the article is organized with main ideas that are easily identifiable. This text is appropriate for the 9-10 grade band.